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Worldwide Report

EPIDEMIOLOGY



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6 April 1984

WORLDWIDE REPORT EPIDEMIOLOGY

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MALARIA RAVAGES, ANTIMALARIA CAMPAIGN DISCUSSED

Dakar AFRICA in French Feb 84 pp 49-51

[Article by Bernard F. Dalmon]

[Text] A contagious disease characterized by intermittent fever, mild or severe, caused by a parasite (special blood-sucking type) and brought on by the bite of certain mosquitoes of the genus Anopheles, paludism or malaria, or malarial cachexia swamp fever is endemic in hot, marshy countries. Forty percent of the world's population, or 1.9 billion people in these various countries run the risk of contracting malaria, or swamp fever.

Malaria is still the most prevalent disease in the world. Each year several hundred million people are attacked by this disease, and hundreds of thousands of its victims die.

Removed from the list of fatal diseases in the industrialized countries, it still heads the list of causes of death in the developing countries. It is a serious and frequent complaint in Africa, where it affects 100 million persons a year and is responsible for at least 1 million deaths annually. The imagination may more easily grasp the fact that, for example, malaria erases from the earth's surface every year the equivalent of the populations of Botswana and Burundi.

Following World War II, the World Health Organization undertook the fight against the chief contagious diseases (MST [expansion unknown], smallpox, leprosy, etc.). Malaria was declared an "international plague." At that time there were an estimated 300 million cases, with 3 million deaths annually and a population of 2 billion people living in malaria-affected regions. The First World Health Assembly decided in 1948 to give priority to the fight against malaria. In 1955, that same assembly decided that the classic antimalaria struggle was not enough; that it must be replaced by a worldwide program to eradicate the disease.

Af first, reports of successes increased. In 1959 the WHO was even able to announce that nearly 300 millions persons, in the Antilles, Chile, Cyprus, Corsica, Italy, the Netherlands, Singapore, the five republics of the USSR

and the United States were free of the disease. In 1968, still according to the WHO, the various programs for eradication covered 800 million people, and certain areas comprising some 100 million more inhabitants were about to launch a campaign against the disease. The effort was maintained, sustained and geared up. In 1963 the WHO was working in central Europe, equatorial Africa and South America. The following year a center was opened at Lome, in Togo, to train health personnel to work in French-speaking Africa. The WHO supported programs in Ethiopia, the Indies and Indonesia. Many and varied population groups were or still are the focus of its efforts, but nevertheless: the results obtained are judged to be poor overall, and this by the organization itself.

The WHO believes that progress of the campaign since 1970 has been too slow, and in some cases, in local areas, the situation is deteriorating. Malaria is reappearing in areas formerly considered to be free of it. In 1978-1980 the world organization was forced to confirm this negative trend. The rate of the spread of malaria has even increased by 40 percent in 8 years in certain countries in Southeast Asia and Latin America. More than 5,000 WHO workers have not been able to eradicate this evil.

Fight Paying Off in Certain Areas

A concentrated campaign for worldwide eradication has replaced the classic forms of fighting malaria. To overcome this plague it is necessary either to eliminate the reservoir of parasites or to eradicate the carrier mosquito. It is this latter course which is currently being emphasized. In spite of all efforts by the WHO, 28 countries in the South Sahara, in Africa, constitute a large malaria-infested area. Ten of these countries still place malaria at the head of the list of diseases, while nine list it in second place.

But still, the campaign is paying off, since it can be said that in spite of some setbacks due to the resistance of mosquitoes in certain regions to the insecticides, the disease has disappeared from an area inhabited by 800 million to 1 billion humans. The fight is continuing. In addition to the role of the WHO, described above, we must mention here the work of the endemic disease services of several countries, which is coordinated for Africa by two organizations: the OCCGE [expansion unknown] at Bobo-Dioulasso, which works with the west African states, and the OCEAC [expansion unknown] at Yaounde, for the nations of central Africa.

Paludism, malaria (malu aria: bad air), swamp fever, intermittent fever--these are the various terms which describe the various ways in which the
malaria parasite affects the human organism.

Plasmodium vivax (one of the most prevalent agents of malaria) causes benign fever or tertian ague, so-called because the attacks of fever appear on the first, third, fifth, etc., days. Very common in North Africa, plasmodium vivax is rare in black Africa, where the more common strain is plasmodium falciparum.

The parasite's journey in the human organism begins with a hepatic exoerythrocytic cycle, after which erythrocytic cycles occur in the circulating
blood; relapses, which are possible with certain parasitic species, occur
when new parasites are released by the liver, and thus there are new
erythrocytic cycles. By dividing in the red corpuscles (erythrocytes),
the malarial parasites form "rosaceous cells" there, which then burst,
releasing new generations of parasites and certain other substances which
damage the hemoglobin. This simultaneous explosion of several billions of
red corpuscles is responsible for the attacks of fever, and this is the
relapse phase. The destruction of red corpuscles leads to anemia. As a
general rule the malaria parasites penetrate the human body by means of
the bite of certain mosquitoes, the Anopheles.

Several days pass before the parasite's activity becomes known; this is the incubation period, about 10 to 12 days.

The infection involves a change in the blood; the poisonous substances carried therein cause the fever reaction. In their milder forms these attacks are of short duration and occur at rather regular intervals. Before the parasite attack, the victim may have the following symptoms: fatigue, poor appetite and headache, as well as pains at the back of the neck and in the limbs; chills and a generally unwell feeling; chills alternating with fever episodes; impaired vision, extreme thirst and poor digestion. It is not unusual to see temperatures of 41°. Then all or most of the symptoms disappear when the fever subsides, only to reappear when another attack occurs. These clinical aspects are not to be taken literally; they are very frequently less obvious, and in that case one should automatically think "malaria" when there is any attack of fever, while at the same time taking care not to systematically associate fever with malaria.

In less severe cases, recovery occurs as suddenly as the disease itself appeared. If the intermittent fever is not completely cured, the general condition of the victim is affected. Physical effort becomes more tiring, the patient complains of dizziness, noises in the ears and lack of appetite. The tongue is coated, and there is nausea. Sometimes, finally, vomiting and diarrhea are present. These are serious complications.

Finally, there are strains of malaria in which there is no fever. This type is called larval malaria.

In addition to plasmodium vivax (the most prevalent), two other parasitic species are pathogenic to humans.

--Plasmodium falciparum or praecox, which is the most serious and, unfortunately, the most frequently found in Africa.

-- Plasmodium malariae (the rarest).

Infection of the mosquito occurs when it bites a human being. After his bloody repast, the insect absorbs gametocytes. Fertilization of the gametes takes place in the stomach. The egg bursts and frees the parasites, which take over the salivary glands; from that moment the mosquito becomes a carrier.

The carrier insect is a diptera of the genus Anopheles. It is a bloodsucking, stinging insect.

Rural by nature, it is fond of hot, humid areas, does not like high altitudes and cannot fly further than 2 kilometers. Alone and by night, the female bites the human. Its flight is silent, its sting not particularly painful. The goal of the campaigr, then, is to combat the Anopheles mosquito, but there are also natural enemies of these carrier insects. Thus the introduction of the Gambusia affine, a viviparous fish from the United States, has resulted in some success in several tropical countries.

The campaign against malaria is rendered more intense by the growing resistance of the Anopheles mosquito, which carries the disease, to insecticides, as well as by the resistance to certain medications of the most dangerous of the Anopheles, the carriers of Malaria plasmodium falciparum.

The intensive and often excessive and irrational use of pesticides is responsible for the "natural selection" of the more resistant strains of mosquito, which survive and continue to multiply.

However, the Franciscan Brothers' magazine questions whether one must not discern the true problems from the false. DDT is an example.

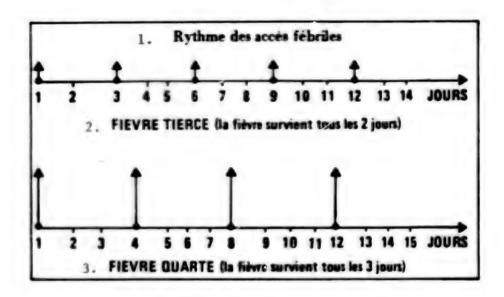
"...This powerful insecticide, used universally, has the disadvantage of being a pollutant and difficult to dispose of. Its accumulation in soils and waters creates the risk of harmful effects. Some ecologists are demanding a pure and simple ban on its use. However, the suppression of DDT would be a catastrophe to human health, and numerous peoples in regions subject to malaria would suffer the frightful ravages of endemic and epidemic malaria." Such a ban, the Franciscan Fathers' magazine continues, "is not justifiable within the present scope of our knowledge..."

At present quinine and its derivatives are not used as a preventive measure. On the other hand, their use as a cure is indispensable in serious forms of the disease.

Medications of the gametocytocide group act upon the gametocytes of the human blood and also within the human liver on the exo-erythroceptary forms. However, these medications are all toxic to humans in varying degrees, since they can release harmful hemolysins, particularly in certain individuals living in the tropics. Since they do not always prevent the passage of the parasite into the blood and have no effect on the multiplying parasite in the red corpuscles, they are becoming less interesting to malaria researchers.

A century ago, Alphonse Laveran, a military doctor, discovered plasmodium; the French health minister was able to recall recently that that doctor's native country was still the principal supplier of biomedical technology; but worldwide eradication of malaria is a longterm, if not an impossible, project. Actually, an area which has become free of the disease can be reinfested by the presence of plasmodium brought in from other areas; this is therefore very dangerous for a population which has lost all or part of its immunity.

Between 500,000 and 1 million victims, 25 percent of them under 5 years of age, continue to give malaria its reputation as a plague. Its total eradication is a dream, but serious hopes are being placed on the possibility of obtaining a vaccine (by 1990). Meantime, let us distribute quinine pills by the billions: they cost 200 times less than hospital care.



Key:

- 1. Rate of occurrence of fever attacks
- 2. Tertian ague fever recurs every 2 days
- 3. Quartan ague fever recurs every 3 days

Malaria in Senegal [Box 2, p 50]

According to the latest statistics, among the most widespread contagious diseases in Senegal, malaria holds second place at times, after purulent meningitis, and third place at other times, after meningitis and measles. Death results in about 10 percent of these cases. These figures, however, reflect only a tiny part of a much more somber situation. In fact, hundreds of other cases of malaria diagnosed as simple are treated as ambulant cases for lack of hospital room. In addition, the areas which have the greatest incidence of malaria (south and southeast) are the very ones which do not have health infrastructures comparable to those of Cape Verde and on which there are no statistics.

Malaria May Be Defeated by Mosquito [Box, p 51]

According to a report from the Pondichery Medical Research Center, it might be possible to use the Culex lutzia fuscanus mosquito against the mosquitoes which spread malaria. A single larva from this mosquito (which does not attack humans) consumes an average of 157 larvae from other mosquitoes. Studies are still necessary before the use of this mosquito can be recommended.

Country of Origin (in descending order):

- 1. Mali
- 2. Senegal
- 3. Cameroon
- 4. Gabon
- 5. Countries of Southeast Asia
- 6. Niger
- 7. Madagascar

African Continent:

- -- North Sahara: still some small pockets of disease;
- -- Ethiopia: situation alarming;
- --South Sahara: countries adjacent to and on the equator: 300 million inhabitants in areas with risk of malaria.

Antimalaria Vaccine

Long and difficult stages have marked research on an antimalaria vaccine. Since the 1960's researchers have worked successively on:

- -- attempts (ineffective) to immunize subjects by using dead parasites;
- --immunization of volunteers exposed to mosquito bites from insects infected with irradiated parasite forms;
- --finally, culture and multiplication of the parasite in the artificial milieu of the laboratory. Based on this, biochemical or genetic manipulation has permitted researchers to focus on a vaccine product.

The vaccine has proved its effectiveness in the limited experimental domain. There are, however, problems of standardization and evaluation if we are to take to the field with it on a large scale.

8735

'ALARMING' SPREAD OF TUBERCULOSIS DESCRIBED

Dhaka THE NEW NATION in English 23 Feb 84 p 5

[Editorial: "Menace of Tuberculosis"]

[Text]

Tuberculosis is said to be spreading alarmingly and the problem is further accentuated by limited facility for treatment and absence of public awareness about the disease. Consequently the scourge is taking a heavy toll each year. A recent report from Thakurgann carried by a national Bengali daily reveals that in 10 upazilas of Thakurgaon and Panchgerh district, 70,000 people are suffering from tuber culosis. Local physicians estimate that four to five percent people in the area are atta ked by T.B. Broadly, this may be true of the country as a whole. The traditional notion about tuberculosis that the villages are less sulperable than the crowded industrial suburbs may not be valid any more considering that the problems of poverty and nutrition are even more acute in villages.

Significantly, in the developed countries during the last few decades, the menace of tuberculosis has been vastly contained, if not completely conquered, and it is no longer a major killer. This has been possible due to the marvels of modern medicine coupled with higher standards of living and nutrition. In our country the decline in the nutritional standard of the commonmen is well known.

And treatment facilities are not only limited, even some hospitals run without X-ray films and streptomycin, the antibiotic necessary for

treating tuberculosis.

Medicinal treatment can be effective when it is accompanied by a dietary regimen as prescribed. Thus tuberculosis is as much as medical as an economic problem. The prolonged treatment is a strain both on the patient and the thinly stretched health service. Happily, with a few weeks treatment the patient can be made bacteriologically negative, i. e. non-infectious, while complete cure would require sustained treatment. Some experts think that a patient, depending on the intensity of his affliction, can even continua with light work while undergoing treatment. Thus tuperculosis need not be economically crippling for the patient and his family if there is greater awareness and the society and the employers cooperate.

Some time ago a drive had been taken to inoculate the school children with B.C.G. injection A laudable effort no doubt. But before one can recommend wider coverage of B.C.G. one must be sure about its effectiveness. B.C.G., it should be recalled, has long been a controversial medical issue, and the American Public Health Association, a prestigious medical body, has always opposed the use of B.C.G. About five years ago a survey was conducted in South India which demons trated the uselessness of this antibody. The public ought to be informed about the latest in this regard.

DAILY VIEWS 1971-1980 HEALTH PROGRAM AS SUCCESS

Santiago TERCERA DE LA HORA in Spanish 26 Feb 84 p 3

Text The Ministry of Health has announced the allocation of 724 million pesos for the purchase of medical equipment and infrastructure facilities so as to continue the nation's hospital modernization program. In addition, funds from the National Fund for Regional Development will be used during this year for further acquisitions which will benefit various services.

All the investments and activities in this field are directly related to the welfare of the population because they are specifically concerned with the existence of the individual human being in order to provide him with a longer and better life.

Today Chile points out with pride that it has reached and surpassed the goals of the 10-Year Health Plan for the Americas covering 1971-1980. Its main achievements are the following: eradication of poliomyelitis, reduction of the measles mortality rate to 0.1 percent, reduction of the tuberculosis mortality rate by 51 percent, reduction of deaths due to diarrhea by 58 percent. Meanwhile deaths of infants and mothers in childbirth were reduced by 60.3 percent and 55.2 percent respectively.

These figures clearly reflect the remarkable progress made in the most varied fields of health for infants as well as adults and reflect the efforts made. This can be summed up in a highly encouraging figure: life expectancy in Chile has increased from 63 to 67 years.

Separate mention should be made of the steps by which third and second degree malnutrition have been reduced by 86 percent and 48 percent, respectively, significantly surpassing the international goals. Every effort made in behalf of the Chilean child will result in a future population which will have greater and better chances of health.

The achievements we are speaking of are positive but in this area it is essential that we work indefatigably since the needs are always growing and changing. Therefore, the new investment which has been announced for the improvement of the hospitals is a most welcome piece of news for the entire population.

Chile has exceptional medical, paramedical and administrative personnel who do everything possible to meet the needs of the people. To provide them equipment and infrastructure is an obligation which, if properly carried out, will permit them to fulfill their obligations more fully and so make possible not only a longer life but also a better quality of life.

9204

GREECE

BRIEFS

REPORT OF HEPATITIS IN LAVRION--The breakout of 50 cases of hepatitis in Lavrion was needed to spur the state authorities to announce some measures. The Attiki nome office has announced that "the community of Romanian refugees in Lavrion that is located in the heart of the city does not have either a sewage disposal system or cesspools. Waste is thrown into the streets and gutters." All of these problems are well known since as far back as October 1983 several cases of hepatitis had been reported by the Lavrion municipality to the eastern Attiki division. The definitive solution to the sewage problem in Lavrion has been entered in the Attiki Nome 5-year development plan.

/Excerpt//Athens MESIMVRINI in Greek 21 Feb 84 p 2/ 5671

GOVERNMENT TAKES STEPS TO MINIMIZE HEALTH RISK OF TOXIC RED TIDE

Hong Kong HONGKONG STANDARD in English 12 Feb 84 pp 1, 3

[Text] THE GOVERNMENT Has set up a contingency plan and a coordination network to minimise health hazards posed by toxic red tide, said Mr Paul Holmes, principal environmental protection officer.

The focal point of the information network is the Agriculture and Fisheries Department's Aberdeen fisheries research station.

All government departments who regularly survey the marine environment will have to report any red tide sightings to the Aberdeen station.

The coordination work will start immediately after the report. The contingency plan incorporated recommendations of the World Health Organisation. It was drawn up last summer by an ad hoc group on toxic red tides, chaired by Mr Holmes.

The coordination group comprises the Health and Welfare Branch, the Environmental Protection Agency, the Hongkong Auxiliary Air Force, the Agriculture and Fisheries Department, Urban Services, Medical and Health and Marine Departments.

Here's how the coordination will proceed, once a red tide sighting is reported: Samples of water, fish and shellfish from the affected area are sent by the Urban Services Department to the University of Hong Kong for testing.

"Suspected food will be detained pending text results. If the samples are proved to be toxic, notices will be issued to fish farmers, suppliers and retailers to withdraw fish affected by the red tides from the sales market," Mr Holmes said.

The AFD will also advise fish farmers on how to protect their fish stocks, by stirring the water with boat propellers to increase oxygen supply, or by towing fish rafts to safe areas.

Mr Holmes said that shellfish needed to be watched "more carefully" during a red tide.

The shellfish absorbs and accumulates a higher level of toxins and other pollutants, he said.

Swimmers will also be advised to stay away from the affected areas because red tides cause minor skin irritations.

The EPA meanwhile operates a regular monitoring programme on the quality of coastal waters, he said.

Since 1980, over 20 red tides have been sighted in Hongkong waters, mostly in Tolo Harbour.

Only one of them had proved to be toxic. It was spotted last October in Taipohoi.

Mr Holmes said that these red tide outbreaks were closely related to coastal water pollution.

"The growing frequency of red tides in Tolo has coincided with the increasing pollution of the harbour caused by the growing population of Shatin and Taipo. However, treatment works have been constructed to limit the impact," he said.

He added that red tides in Hongkong pose aesthetic and economic risks rather than health hazards. It disrupts coastal recreation and kills fish through oxygen depletion.

"But the danger of poisoning caused by seafood contaminated by toxins should not be overlooked," he said.

The government is taking precautions against "paralytic shellfish poisoning" caused by toxic red tides, though this type of incident has never occurred here.

Studies of algae growth (the cause of red tides) under different conditions in Tolo Harbour have also been started at the EPA.

PLANS ANNOUNCED TO BUILD 5 NEW HOSPITALS IN NEXT DECADE

Hong Kong SOUTH CHINA MORNING POST in English 13 Feb 84 p 12

[Text] The Medical and Health Department's plans to build one hospital every two years for the next decade.

The five major hospitals planned or under construction are the 1,600 bed Prince of Wales, and 1,400 bed hospitals at Tuen Mun, East Kowloon, Chaiwan and Taipo, a department spokesman said yesterday.

At the same time extension blocks will be built at the three existing regional hospitals.

The cost of the multi-hospital plan has not been released.

Under the development programme, about 20 general clinics and polyclinics are due for completion during the decade.

Subvented and private organisations also play an important complementary role in the provision of medical care, he added.

Projects in the pipeline include further extension to Yan Chai hospital and Pok Oi hospital, and redevelopment of the Ruttonjee Sanatorium into a 430-bed general hospital.

Three new private hospitals are in the planning stage, with a capacity of 200 to 600 beds each.

To support the ambitious medical development programme, additional facilities are being developed for the training of doctors, nurses and para-medical staff, the spokesman said.

Apart from the University of Hongkong, which produces about 150 doctors a year, the medical school in the Chinese University started its first intake of 60 students in September 1981.

Last year, eight training schools for general registered nurses started operation, with an average annual capacity of 1,235 trainees.

Three new nurse training schools and the expansion of the existing ones, providing a total of over 400 additional training posts, are planned for the coming decade, he said.

He said public demand for medical and health services continued to increase last year.

To meet demand, a number of major projects, including extensions or improvements to existing hospitals and clinics, was completed during the year as part of the department's development programme for the rest of the decade.

Despite this a heavy strain was placed on existing services, the spokesman said.

In the first nine months alone, about 309,400 in-patients were treated in Government hospitals and 170,400 people in Government-assisted institutions.

During the same period, about 11.1 million attendances were recorded in Government general and specialist out-patient clinics.

Pressure on services was heaviest at the three Government regional hospitals-Queen Mary, Queen Elizabeth and Princess Margaret.

During the year, he said the Central Health Education Unit continued to play a role in promoting the health of the community and carried out a number of campaigns to help the public understand and prevent the spread of diseases.

Higher cure rates were also reported in the year for two of the most prevalent cancers in Hongkong--uterine cervical and nasopharyngeal carcinoma.

The department now carries out tests for detecting the two diseases early, thus promising even higher cure rates.

The year also saw the start of construction work on the first phase of the Queen Mary hospital extension project, the largest extension programme ever undertaken by the department.

When completed, it will provide an additional 675 beds in the hospital.

The second phase of the Nam Long hospital extension project was completed last year, adding three storeys to the existing tower block of the Government-assisted hospital and providing more laboratory facilities and doctors quarters.

An accident and emergency section was opened at the Chai Wa health centre to provide essential treatment for emergency cases in Eastern district.

A full accident and emergency d partment is expected to be available at the Shaukiwan hospital due to open in 1990.

The Government now operates 57 general out-patient clinics and where necessary, cases are referred to polyclinics or specialist clinics for special treatment.

The school dental care service, introduced in 1980, continued to provide regular dental examination and simple dental treatment to primary school children.

There are two school dental clinics and six more have been planned. Untimately, the dental scheme will provide cover for all primary school children.

By the end of last year sophisticated whole-body scanners had been installed in all three regional hospitals.

And a fourth is expected to be in operation in the new Prince of Wales Hospital in May.

MEDICAL SERVICES BUDGET -- AN extra 1,740 hospital beds will be provided by the new budget, but this is still about 20 per cent short of the estimated requirement. Sir John Brembridge estimated that \$3.55 billion will be spent on government and subvented medical services this financial year--an increase of almost 16 per cent over last year. "The \$645 million Prince of Wales hospital will commence operations in May this year," Sir John said. "It will have 1,488 beds and serve as the regional hospital for the Eastern New Territories as well as the teaching hospital for the Medical Faculty of the Chinese University of Hongkong." He said development programmes were under way in five subvented hospitals to expand and upgrade their facilities, and to develop the integration of government and subvented medical services. Capital subventions of \$92.3 million have been provided by this budget for Caritas, Pok 01, and Yan Chai hospitals, the Ruttonjee Sanatorium and the MacLehose Rehabilitation Centre. "In addition to \$148.3 million for the hospital project in Tuenmun, a further \$7.5 million will be spent in 1984-85 on site formation works for a new hospital to serve the Eastern District of Hongkong Island," Sir John added. On dental health, the Financial Secretary said that work would start on two new school dental clinics, and four other clinics had been planned to cover all primary school children. [Text] [Hong Kong HONG-KONG STANDARD in English 1 Mar 84 p 5]

MALARIA CASES REPORTED ON RISE IN CALCUTTA

Calcutta THE SUNDAY STATESMAN in English 11 Mar 84 pp 1, 7

[Text] MALARIA seems to have come to stay in Calcutta. In 1982, Calcutta Corporation recorded 6,785 cases. Though the final figures have not yet been received for compilation, officials of the Corporation's Health Department put them aroung 7,000 in 1983.

Officials of the Union Department of Health and Family Welfare are doubtful about this figure. They say that they run three malaria control centres in Calcutta. Over 6,000 cases of malaria were recorded in 1983 at one centre alone. If figures recorded at the three centres are taken into account, the total number of cases will not be less than 15,000.

That the disease has shown no evidence of being eradicated is apparent from the fact that whereas 23 cases were reported in January last year at one centre, as many as 194 cases were reported by the same centre in January this year. In February, 224 cases were recorded, against 44 recorded during the the corresponding period last year.

Public health experts point out that the southern part of the city is worst affected. The areas from where malaria has been reported are Kalighat, Ballygunge, Rachbehari Avenue, Park Circus Alipore, Chetla and Tollygunge. The experts say that apart from the insanitary conditions, trenches dug by the Metro Railway and Calcutta Metropolitan Development Authority have largely contributed to the phenomenol growth of mosquitoes. They say that water accumulated in the trenches is neither always drained out nor treated with insecticide. Corporation officials say that the matter has already been taken up with the Metro Railway which has assured them that the water accumulated in trenches will be flushed out. Where dewatering is not possible, stagnant water will be chemically treated.

Another important factor responsible for the outbreak of malaria in the city is the influx of people from neighbouring States which are malaria-struck. People suffering from malaria come from Orissa, Bihar, Assam, Tripura and other eastern states. Their presence in the city spreads the disease.

It is pointed out that the water surface areas in the city where mosquitoes can breed cover 32,000 acres. Of these 12,000 acres fall within the

jurisdiction of Calcutta Corporation and the remaining 20,000 acres belong to the State Irrigation Department, CMDA, Metro Railway, Defence, Port Trust, railways and the Central Public Works Department. This 20,000-acre area has a number of tanks, wells, marshy land, gully pits, septic tanks, service privies, surface drains and about 2,000 khatals which are considered ideal breeding grounds for culex mosquitoes which account for roughly 98% of the city's mosquito population. It is adult female anopheles mosquitoes, constituting only 0.2% of the city's mosquito population which are carriers of malaria parasites.

Already a high-power committee has been formed with representatives from all agencies for an anti-mosquito drive. The committee has suggested that permanent breeding grounds be reduced; surface drains and canals be flushed and water kept flowing; refuse should not be thrown into the drains from nearby shops, restaurants and hotels in this impedes free flow of water and finally growth of mosquitoes should be biologically controlled.

To control the mosquito population, Calcutta Corporation has already made a novel experiment with astonishingly good results in North Calcutta. Small and colurful fish called Gambushia, Guppi and Lacetail were released in surface drains in Cossipore in North Calcutta. These fish feed on mosquito eggs and larvae, diminished significantly by many drains and in some drains larvae could not be detected at all, Calcutta Corporation plans to set up a hatchery in the Ballygunge Vaccine Institute where mosquito-eating fish would be bred on a large scale in collaboration with the National Malaria Eradication Programme.

HEALTH SURVEY REVEALS POLIO, LEPROSY STATISTICS Calcutta THE STATESMAN in English 24 Feb 84 p 9 [Text]

NEW DELHI, Feb. 23 .- A recent health survey in 12 States and four Union Territories has revealed that polio is the "single major cause" of lameness among children in the 5-8 years age-group. Sixty-seven per cent of the children in the urban areas and 62% in the villages were affected.

The incidence of polic was found been identified on the basis of to be the menimum in Oriesa and endemicity.

the maximum in Rajasthan. In Discussing the N. Sonal Leprosy Oriona, it was 67 and 64 per 1.000 children in the urban and rural areas, respectively, against 2.5 and 2.1 per 1,000 in the urban and rural areas of Bajasthan

Surveys are being conducted in Jammu and Kashmir Himsehal Pradesh and the Northeastern

region.

The Minister for Health and Family Welfare, Miss Kumud Joshi, made these disclosures at a meeting of the Parliamentary Consultative Committee attached to her Ministry vesterday, on the eve of the Budget session of Parliamentary.

This prompted some MPs to express anxiety about the rise in the incidence of polio and wrge the Government to reserve more

the trovernment to reserve more funds for tackling the disease.

Though the Government has allocated its 15 crore, for the National Leprony Eradication Programme for 1864-85, leprony opports to be apreading in the causality.

The Minister said 23 new districts afflicted with leprosy had

Discussing the N. foral Leproxy tradication Programme during Discussing the N. Yonal Leproxy Eradication Programme during 1983-84, the Minister sand that till December 1983, 302,848 leproxy patients had been detected, 267,168 of whom had been brought under treatment. She said 158,630 were discharged presumably after treatment. treatment.

The consultative committee was also told that the scheme to associate private medical practitionem in the country's family planning programme had been extended for another way from Getober IL.

Members were also told that the "Green Card" acheme (applicable to acceptors of terminal methods after two children; had been im-plemented to Tamil Nadu. Karnataka and Ornea

The Minister and efforts were being taken to fight adulteration and in the Seventh Plan, all aper laboratories were to be equipped with instruments for analysing

edibles precincis
Also, to attract the services of expert analysis to the 67 State leed and drug testing laboratories, it was decided to raise their status to that of a Deputy Director, Health Services.

DENGUE FEVER KILLS 51 IN KRAWANG, WEST JAVA

Jakarta SINAR HARAPAN in Indonesian 17 Jan 84 p 3

[Text] Krawang, 16 January--Dengue fever has been reported among the people of Krawang Regency, West Java. Since the third quarter of 1983, out of 635 people who have been affected by the disease, 51 are recorded as having died.

This was stated by Dr Suhud Muhtar, chief of section of the Program for Protecting Against Contagious Diseases (P3M) of the Health Service of Krawang Regency, in a statement to a SINAR HARAPAN representative on Friday, 13 January.

Dr Suhud Muhtar said that protective measures at present involve wiping out mosquito breeding grounds (PSN), as a continuation of the program for wiping out mosquitoes through abatement techniques (killing mosquito larvae) and spraying the homes of local residents, using "Malathion" insecticide mixed with solar oil.

Since the end of December 1983, he said, every 4-hectare area where about 100 homes are located has been sprayed. Then, in areas where the incidence of the disease is considered rather high, further protection is provided through the abatement program. Up to the present, he said, 500 liters of "Malathion" have been used.

Dr Suhud Muhtar admitted that it is rather difficult to eradicate dengue fever, because the Aedes Aegypti mosquito cannot be seen easily. Wiping out mosquito breeding grounds, he said, in order to reduce the number of mosquitoes, also keeps the insects from multiplying.

H Opon Sopandji, the regent of Krawang, is very much concerned about the fact that people have died from dengue fever in his regency.

On 5 January 1984 the regent of Krawang issued Letter of Decision No 002/SK/KS 021/XIII/1984, which formed a Coordination Team for Protecting Against Dengue Fever, reaching down to the villages in the regency.

The regent warned that if supplies of medicine run short, people should immediately report this fact to the Health Service of Krawang Regency.

The regent also warned the local residents that fresh water in reservoirs in bathrooms or other places and drinking water storage areas should always be kept clean because mosquitoes thrive in fresh water.

5170

33,000 LEPERS IN EAST JAVA—Djuhri, chief of the Community Health Section of the Bureau of Social Development of the Office of the Governor of East Java, has stated that the number of people identified as suffering from leprosy from 1974 to the present has risen steadily and now totals 33,055. However, programs to rehabilitate them and to reestablish them in society have also increased. During fiscal year 1983-84 210 million rupiahs have been made available for this purpose. On a phased basis the funds were distributed to the regencies in need of them between 5 December 1983 and 3 January 1984. The funds took the form of trial grants distributed to the regencies of Sidoarjo, Gresik, Tuban, Tulungaggung, Madiun, Malang, Banyuwangi, Bojonegoro, Sampang, Nganjuk, and Jember. In the near future the ulama [Muslim scholars], as "informal leaders" of the community, will also be brought into contact with this question. It is hoped that the ulama in each regency can clarify the situation to the local people, so that they will treat persons formerly suffering from leprosy like other members of the community. [Text] [Surabaya SURABAYA POST in Indonesian 2 Jan 84 p 2] 5170

DENGUE CASES IN JAVA--A spokesman of the Kediri District administration in Central Java [sic] has said that some 22 people have been hospitalized after dengue broke out in the subdistricts of Grogol, Ngadiluwih, Gurah, Pagu, Puncu, Paper, Purwosari, Plemahan, Para, and Kunjang during the week 19-25 February. No casualty was, however, reported. [Summary] [BK091713 Jakarta JAKARTA POST in English 28 Feb 84]

GOVERNMENT DISPUTED: HEALTH FUNDING CUTS THREATEN LIVES

Dublin IRISH INDEPENDENT in English 9 Jan 84 p 3

[Text] Health Minister Barry Desmond is pressing ahead with the cuts in health expenditure—despite claims by the junior Fianna Fail spokesman, Dr. Sean McCarthy that people's lives will be endangered.

The eight health boards are required to cut their spending by millions under the proposals put to them by Mr. Desmond. As a result, the Southern Health Board, for example, is almost certain to lay off 400 personnel.

"The Minister has said that the quality of medical and hospital care will not suffer. But it will suffer and somebody had better say so," said Dr. Michael Smith, president of the Irish Medical Union, last night.

The IMU is consulting the health boards about the effect of the cuts currently and expects to have a policy document ready by the end of the month.

£20M. a Week

Mr. Desmond has said that it costs the country \$20m. a week to run the health service.

He admitted that "inevitably" the cuts would have some effect on jobs and services, but declared that there was no reason why the hospitals should not be run on a five-day working week.

It was ludicrous that patients should be brought to hospital, at great expense to the taxpayer, on a Saturday and a Sunday. "It is quite ludicrous that we should have a lot of weekend rostering of staff," he stated.

In the past 15 years, the number of admissions to hospitals has doubled, he said. "The Irish people in the last 15 years are not twice as sick," he went on.

In 1978, 4400m. was spent on the health services. "Today we are spending 41,066m. an increase of 165 p.c.," he said.

There was no reason for anyone in this country to worry that if they go into hospital they won't get adequate medical and nursing care. But what he was

concerned about was that people should only be brought to hospital when they need to be brought in. Every day that someone spends in hospital costs the taxpayer approximately &200, he said.

He said he wanted to hear by January ll from the health boards about what they have done to stay within their targets. He said he knew of a number of health boards where already, without recourse to laying off staff, they have been able to live within their budgets.

The health boards considered the cuts at meetings last week.

The South-Eastern Health Boards, for instance, was asked to make cuts amounting to 63.8m. But at a meeting a few days ago they could only agree on cuts amounting to 61.4m. Those on such items as building maintenance, travelling expenses and energy costs.

That meeting was told by the Fianna Fail spokesman, Dr. McCarthy that further cuts would be unacceptable—and said that people could actually die as a result of the cuts being forced on them.

Yesterday, Dr. McCarthy said he thought that approximately 1,000 jobs throughout the country are going to be affected by the cuts.

He said he felt that the Government had become hypnotised by finances and balancing the books and that people don't seem to matter. And their health doesn't matter, either, he added.

OUTBREAK OF MENINGITIS IN VITERBO: TWO DEATHS

Rome L'UNITA in Italian 13 Mar 84 p 20

[Article by Aldo Aquilanti: "Viterbo Still on Alert--Schools Reopened but Half-Empty"]

[Text] The incubation period is not yet over. It is certain that this involves meningitis. The analyses made on samples and received at Viterbo yesterday demonstrated the presence of three types of lethal meningococcus. We thus have three confirmed cases, of which two are fatal. According to Silvia De Lorenzo, as a matter of fact, the young trainee at the Viterbo NCO school died on Sunday after slipping into a deep coma several days earlier. His name was Maurizio Paonetto, 18, from Turin. The news is good regarding the health of Maria Grazia Rossi, the third case, regarding whom the doctors say that "We are not going out on a limb by talking in terms of recovery." But the diagnosis is not yet clear for Mauro Rossi, the other trainee at the NCO school, a fellow platoon member of poor Maurizio. The young man is still in a coma but medical personnel at the infectious disease section of the hospital rule out meningitis, at least on the basis of the analyses that have been made so far, as they say. However, investigations are in progress to determine whether there was any, even brief "contact" between the three young persons who were stricken with meningitis. In the meantime, local health authorities are completing the disinfection of all schools, some "suspected" discotheques and public transportation. The atmosphere among the people has not yet calmed down. Panic seems to have yielded to a justified worry. Yesterday morning likewise, as a matter of fact, the schools were half deserted. The teacher training institute is still closed; it is attended by girls who were stricken by meningitis. On Sunday, few people went to the movies and the discotheques were deserted. All military personnel continue to be confined to the NCO training school. There are no passes and no visits by relatives and everybody gets a massive dose of antibiotics. An announcement from the hygiene office of the third Viterbo USL [local health unit] states that the situation is under control. "There is a positive fact here," says Professor Augusto Velluci, chief physician of the infectious disease section at the Viterbo Hospital. "Six days have gone by since the last case and that looks good because it means that the three cases can be considered to be isolated cases."

This is ment was supported by Dr Giancarlo Pistoletti, in charge of the hygiene fice of the USL, who had this to say: In spite of the fact that there have been two deaths, the situation has now taken on a different

dimension; but we must remain on the alert because meningitis is a strange and unpredictable disease. We must finally report the school reopening order which the regional health advisor's office took with respect to the 1st Viterbo USL which, perhaps as result of the panic last Friday, had decided to close all school buildings for 3 days. The Viterbo superintendent also criticized this order. The health authorities continue their appeals, urging everybody to avoid crowded public places. We are also getting the first political interpretations as to how the whole thing was handled. "There was no coordination between the province's five USL," said Enzo Zazzera, the provincial health and social services council member. Each USL, so to speak, made its decision without knowing anything about what the other ones were doing. This has caused continued confusion due to the lack of correct scientific information as to prevention. Yesterday, however, the lines in front of the pharmacies had dwindled by one half.

5058

MAIARIA ERADICATION DRIVE—Thirteen malaria cases were reported in January 1984, compared with 34 in January 1983. This reduction in the number of cases is an encouraging result in the context of the malaria eradication campaign being led by the health minister with the aid of the World Health Organization. The campaign to spray active centers of malaria identified last year is developing in two stages: 1) The first phase, involving 38 centers, is about to be completed, while at the same time pills are being distributed to the inhabitants of areas affected to immunize them against the disease. 2) The second phase, covering 33 centers, will begin soon afterward. In all, then, 71 centers will be covered. We emphasize that an active center is defined as any affected region having more than three cases. The torrential rains of the last few days have not been favorable to the eradication of malaria. Nevertheless, the minister of health is doing everything possible to carry out the spraying campaign within the time indicated. [Text] [Port Louis LE MAURICIEN in French 7 Feb 84 p 4] 8735

CHOLERA EPIDEMIC REPORT--A physician from the National Health Directorate told Radio Mozambique yesterday that the current picture of cholera in the country is quite calm. According to her report, since the beginning of this year, only three cases of the disease have been reported in the city of Pemba, in Cabo Delgado. She further said that in the areas where there were cholera outbreaks last December, there have been no further suspected cases of the disease since then. Last year there was a serious epidemic in Gaza and Maputo Provinces, with more than 4,000 cases of cholera in Gaza Province alone. The same source added that there were 10,000 cases of suspected or confirmed cholera nationally. Although investigations have not been concluded, we know that the disease caused over 400 deaths in 1983.

[Text] [Beira DIARIO DE MOCAMBIQUE in Portuguese 19 Jan 84 p 16] 9805

DAIRY WORKERS CATCH LEPTOSPIROSIS FROM CATTLE--Dairyfarm workers are still catching the disease leptospirosis from their cattle despite warnings to vaccinate herds. A recent Department of Health survey in the South Island gathered blood samples from 334 milkers and found that nearly 12 percent showed signs of current or recent leptospirosis infection. The disease was slightly more common among milkers in Southland. Dairyfarmers usually become infected with the disease after being spashed with the urine of infected animals. Leptospirosis is a short feverish illness beginning with fever, acute headaches, chills and sometimes nausea and vomiting. Other symptoms can arrive later if the disease affects the kidneys, liver, skin, blood or other organs. However, the number of cases is declining after a peak of 486 reported cases in 1980. The number dropped to 292 in 1981 and 144 in 1982. The Health Department aims to reduce the number of cases to less than 100 by next year by encouraging farmers to vaccinate cattle. [Text] [Wellington THE EVENING POST in English 22 Feb 84 p 9]

CHOLERA OUTBREAK IN SOKOTO--An outbreak of cholera has been recorded in some villages within Kaura Namoda local government area of Sokoto State. The sole administrator of the area, Alhaji (Adamu Bako Abubakar), has confirmed that at least 10 children have died from the epidemic. More than 3,000 children have so far been vaccinated against the disease in the area. Similarly, the state Ministry of Health has sent nearly 2,000 doses of anti-cerebro-spinal meningitis vaccine to Kaura Namoda local government. Our correspondent recalls that more than 50 lives have so far been lost in the area over the past 6 months following the outbreak of various diseases. [Text] [AB192030 Kaduna Domestic Service in English 1700 GMT 19 Mar 84]

CONCERN EXPRESSED OVER UNSAFE IMPORTED DRUGS

Lahore THE PAKISTAN TIMES in English 6 Mar 84 p 4

[Editorial: "Lethal Drugs"]

[Text] Public concern has been expressed periodically about the drugs being imported into Pakistan. This newspaper carried a report on this subject a few days ago. The categories arousing alarm are: drugs discovered in the West to be harmful to health, drugs still in the testing stage and drugs containing ingredients long discarded in the countries where they were first produced. The drug world is the world of multinationals big enough to finance expensive research for long years and then market them aggressively at the prices they want for the end-product. The pricing of products is perhaps justified; in any case, the Third World can hardly complain as it is unable to undertake the sort of research required in the development of new drugs. Thirty per cent of the world trade is in the hands of the multinationals and the pharmaceuticals are among the most powerful of them. In the industrial field, prejudice against the multinationals has abated after a period of frenzied opposition: after all, they bring us technology, capital goods and give our people good jobs. But the pharmaceuticals are outside the ambit of this revision of perception. They mostly shift their packaging operations to the Third World; research and actual manufacture is not always exported because it is not possible at all times.

The Ombudsman has moved against the use of clioquinol and has asked the Federal Health Ministry to withdraw it from the market. This is going to affect approximately 40 brand names in which clioquinol is being used. In the West the drug has been found to have harmful side-effects and banned by extremely vigilant State agencies monitoring newly marketed medicines. This has meant an astronomical loss of finances employed by the pharmaceuticals in research, development and manufacture. Before a drug is packaged and sold, entire teams of scientists will have spent long years of dedicated work on them. When the State monitoring agency bans a medicine it is automatically removed from the entire Western market. The news, however, does not travel as fast to the rest of the world where health is a problem sector. If the West is chary of the antibiotics and the GP's there do not prescribe them in non-emergent cases, the Third World doctors simply luxuriate in their prescription as the patients seem

to get well almost immediately. The Third World, where hospitalisation is a nightmare, itself blinks the warning about the erosion of the immunity system because it can not back up the health system with better surrogates. Needless to say, the long-term effects of this attitude will be extremely negative, like so many other things that we do not take a long view on. There are a number of new drugs related to rheumatism that are positively lethal and have been taken off in the West. The Health Ministry should publicise all the new medicines banned in the West and disallow their import. As our doctors have long given up the habit of reading journals and are completely vulnerable to the pharmaceuticals' aggressive sales pitch, the Ministry should use the media to let the public be forewarned about lethal drugs. That we pay through our nose for foreign brands is acceptable but to do so in the case of medicine that is going to kill us is unacceptable.

LI DESHENG INSPECTS DISEASE CONTROL IN JILIN

OW120522 Beijing XINHUA Domestic Service in Chinese 0107 CMT 11 Mar 84

[Text] Shenyang, 11 March (XINHUA)—Li Desheng, member of the Political Bureau and head of the Leading Group for Prevention and Treatment of Local Endemic Disease of the CPC Central Committee, recently went to Yanbian Korean Autonomous Prefecture, Jilin Province, to find out about the development of prevention and treatment of endemic diseases. He pointed out emphatically: It is necessary to promote the socialist spirit of mutual help, practice mass prevention and mass treatment and create a new situation in preventing and treating endemic diseases.

In a mountain village in Dunhua County, Li Desheng saw a doctor of a privately operated clinic, Ni Shuzhen, making house calls and giving injections to patients seriously ill of Keshan disease. Li Desheng praised her: "Your communist style of serving the people wholeheartedly is worth emulating by everyone. Ours is a socialist country, and we should vigorously promote the socialist spiritual civilization and encourage mutual concern and mutual help when anyone is faced with difficulties. This is a concrete manifestation of the superiority of the socialist system."

Li Desheng told the county and township party committee secreatries and village party branch secretaries accompanying him: According to the new situation and new problems in endemic disease prevention and treatment brought by the implementation of the responsibility system in rural areas, party organizations at various levels should conduct studies on how to help the seriously ill and hard-put patients cure their diseases. CYL, women's federation and militia organizations and middle and primary schools should launch extensive mutual help activities and take good care of the endemic disease sufferers as they do households which enjoy the five guarantees. Locally stationed PLA units should also make helping the seriously ill and hard-put patients solve problems an important activity in the joint army-civilian effort to build civilized villages.

On 23-27 February, Li Desheng visited remote rural villages in five townships in Dunhua and Antu Counties deep inside the Changbai Mountains. He called on 16 households of endemic disease sufferers, expressed his sympathies for the sufferers of various nationalities and their relatives and presented gifts of first-aid medicine to seriously ill patients.

Li Desheng conducted careful investigation and study and attentively listened to the masses' opinions in these places. He pointed out that in places where endemic diseases are caused by poor water quality, it is necessary to organize endemic disease scientific research forces to tackle the difficult scientific problems and earnestly find out what causes the local disease. In places where the cause of diseases have already been found, it is necessary to strengthen propaganda and education work so that all the patients will understand the causes of the diseases and how to prevent and treat them.

Li Desheng also stressed: In connection with other work, cadres at various levels should go to disease-afflicted areas and call on patients every year to look into the sufferings of patients and enhance their own sympathy and sense of responsibility. It is necessary to bring into full play the initiative of all departments to continue to improve the comprehensive disease prevention and treatment work.

STUDY OF TOXOPLASMOSIS IN BEIJING REPORTED

Beijing ZHONGHUA YIXUI ZAZHI [NATIONAL MEDICAL JOURNAL OF CHINA] in Chinese No 12, Dec $83\ p\ 800$

[Article by Wang Zhenyi [3769 2973 0308] et al.: "An Investigation on Toxoplasmosis in Beijing District"]

[Summary] The sera of 811 adults (399 men and 412 women) and 49 newborn infants of Beijing were examined for antibody against surface membrane antigen of Toxoplasma gondii by direct agglutination test. Antibody positive rate in the 811 adults was $17.1 \pm 1.3\%$ (IgG positive in 11 and IgM positive in 128 adults). The positive rate in the 399 men was $20.3 \pm 2.0\%$ and that in the 412 women was $14.1 \pm 1.7\%$. There was a striking difference between the two sexes (P<0.05). The positive rate in 221 rural inhabitants was $28.5 \pm 3.0\%$ and that in 590 urban inhabitants was $12.9 \pm 1.4\%$. The difference was significant (P<0.01). 392 of the 412 women were of fertile age; and the positive rate in them was $13.5 \pm 1.7\%$. 49 of the 392 women were parturients; and negative reaction was observed in them and in the 49 newborns. This testing method can detect IgM and IgG in the meantime, but the positives were principally of IgM. The titer distribution of both types of antibody was 1:8-1:128.

PEOPLE'S REPUBLIC OF CHINA

UN-SPONSORED PROGRAM UNDERTAKES WATER IMPROVEMENT

OW230343 Beijing XINHUA in English 0151 GMT 23 Mar 84

[Text] Beijing, March 23 (XINHUA) -- Equipment will be installed to provide around 30 million peasants with sanitary drinking water this year, said Li Jiuru, deputy director of China's National Action Committee for the United Nations' international drinking water supply and sanitation decade (1981-1990) program. The committee was set up in 1981 when China joined the U.N.-sponsored program. Cui Yueli, minister of public health, serves as its director.

The committee is to undertake water improvement projects in eight provinces and municipalities with the help of a 100 million U.S. dollar interest-free loan provided by the Corld Bank. They will cover the rural areas in Beijing and Shanghai and Tiangsu, Zhejiang, Guangdong, Shaanxi, Sichuan and Liaoning Provinces.

There are still about 500 million peasants who get their drinking water from rivers, ponds or shallow wells which are often polluted. In the past three years, Li said, sanitary drinking water has been made available to 40 million peasants. The Central Patriotic Health Campaign Committee plans to establish two national training centers for personnel working on the water improvement projects in Liaoning and Hebei Provinces.

HEPATITIS INFECTION FOUND IN BLOOD BANK

Colombo DAILY NEWS in English 6 Mar 84 p 1

[Article by T. Sabaratnam: "Deadly Donations from the Blood Bank?"]

[Text] Atomic Energy Authority scientists, analysing blood stored at the Colombo blood bank last year, have found several of the samples infected with chronic hepatitis.

"Six of the 970 samples we analysed were infected with hepatitis. People who received transfusions of this blood could have died in two years", Dr. Granville Dharmawardene, head of the Atomic Energy Authority told a meeting of engineers on Saturday.

Painting a grim statistical picture, he said that one out of every 150 patients receiving blood transfusion ran the risk of dying within two years of liver disease.

"A healthy person given a transfusion to make up blood losses in a haemorrhage is sent home to die of liver disease in two years", he said.

Modern atomic tools are now being used to minimise such risks, Dr. Dharmawardene revealed. The infected blood at the bank was detected and destroyed. The donors were traced and treated.

An effort to set up a radio immunology system enabling effective monitoring of blood at the bank is now being made, official sources indicated.

Blood testing is not the only purpose for which this technology is being used in Sri Lanka today--42 institutions are now using atomic devices with five more joining the club this year.

The uses are immense. The Paper Corporation uses this technology to regulate the thickness of its products; Ceylon Tobacco to determine that their cigarettes are properly filled; the Steel Corporation to monitor levels of molten steel; the Fertiliser Manufacturing Corporation to have the right chemical mix; Colombo Dockyards to check carbon dioxide concentration in fire extinguishers; and the Petroleum Corporation to clear blocked pipelines and monitor lead and sulphur content in fuel.

Radiation is also used for cancer treatment and hydrological studies.

"The uses are legion. We are still at the initial stages", Dr. Dharmawardene explained.

Recently a childless couple visited the nuclear medicine unit at Peradeniya. The man was found to have cancer and was treated. He was lucky. The cancer was detected early.

"I don't know whether the couple had a child. Another cancer diagnosis was made at Peradeniya where the patient was a girl who had not attained age", Dr. Dharmawardene said.

The Blood Bank declined to comment on Dr. Dharmawardene's remarks, made at a seminar organised by the Engineers' Association of the Central Engineering Consultancy Bureau.

"We need Health Ministry clearance to talk to the press", a spokesman explained.

BRIEFS

THREE DYSENTERY DEATHS--THREE people died of dysentery in Semang'ombe village in Kamsamba division, Mbozi district recently, Shihata reported yesterday. According to reports by the Mbozi Area Commissioner, Ndugu Hudsson Lebi, the three--two men and a girl--came from villages on the shores of lake Rukwa. [Text] [Dar es Salaam DAILY NEWS in English 14 Mar 84 p 3]

BRIEFS

MENINGITIS VICTINS—A tannery worker was in a critical condition yesterday after suffering a severe attack of meningitis, the infectious brain disease. Geoffrey Bateman, 35, of Stroud, Glos, became the 19th meningitis victim in the Stroud area in the past two years. Eighteen teenagers who contracted the disease have recovered. [Text] [London THE DAILY TELEGRAPN in English 1 Feb 84 p 3]

FLU VIRUS--An influenza virus appeared yesterday to be gathering strength in the North East as the infection seriously depleted ambulance and fire crews and also hit staff at hospitals and schools. A British Medical Association spokesman said yesterday that the virus was "very infectious." [Text] [London THE DAILY TELEGRAPH in English 6 Mar 84 p 1]

SERIOUS MALARIA OUTBREAK AFFECTS CHIKUPI AREA

Lusaka DAILY MAIL in English 5 Mar 84 p 5

[Text] AN OUTBREAK of malaria has seriously hit Chikupi area about 20 kilometres west of Kafue preventing a lot of school children from attending classes.

And Chikupi Ward chairman, Mr Abraham Chipongwe who described the situation in villages as very serious, has appealed to the Lusaka Province medical officer to open Chikupi Rural Health Centre to effectively curb the outbreak.

Mr Chipongwe said the vater problem which was the main obstacle behind the delay to open the centre was solved early in January when water pump for the borehole was bought:

"I just do not know why the provincial medical officer has not sent staff so that the centre could start operating," said Hr Chipongwe.

A tour of the area over the weekend revealed a lot of sick people in villages lying helplessly as there is no clinic nearby where to go for treatment.

At Kachobya and the other adjoining Chibombe village, 20 people mostly children, were in agony. Branch chairman for Chilambila, Mr Aaron Moonga said the situation was serious in the other villages which were not visited.

Mr Hoonga's sentiments were confirmed at Chikupi Primary School where the headmaster, Mr Altorn Kasanga told the Parent's Teachers Association chairman, Mr Josaac Matimba that a lot of pupils were victims of malaria and could not attend classes.

Mr Matimba, who visited the school to see how pupils had been affected by the outbreak, was told that on Friday, 27 pupils in one class were absent and 14 in the second while in the third 18 pupils were recorded absent due to sickness.

Last Wednesday the health department in the Lusaka Rural District Council supplied Chikupi Primary School with about 1,000 doses of chloroquine to curb the disease among school children but the chief health inspector, Mr David Moonga said the drugs were not enough in view of the seriousness of the outbreak.

ANTICHOLERA CAMPAIGN SCORES 'DRAMATIC' SUCCESS IN EASTERN DISTRICTS

Bulawayo THE CHRONICLE in English 6 Mar 84 p 3

[Text] THE extensive campaign against cholera has scored "dramatic" successes in Zimbabwe's eastern districts, says the Secretary for Health, Cde Office Chidede.

Interviewed yesterday, Cde Chidede said the network of roadblocks used to bolster the work of rural clinics had worked well in containing cholera.

"The methods we have been using have been very successful. The roadblocks operated by the police, army and our own people have worked well and we have definitely contained the problem.

"We have been following up people in villages and I can only say the situation is very much improved," he said.

Anyone suspected to have been in contact with cholera was given preventive treatment for seven days.

"We have established special camps to treat people who might have cholera and anyone who is suspected to have come into contact with it is given what we call prophylactic treatment for seven days".

Complacent

Cde Chidede added that although the cholera problem was not well under control there was no reason for Zimbabweans to take it easy.

"This is a serious disease and we must not be complacent about it," he said. "We simply cannot afford to be."

The secretary could not say whether the increased number of displaced Mozambicans seeking refuge from drought, floods and famine could contribute to a possible worsening of the cholera problem.

A relief agency source last week said the movement of Mozambicans across the Zimbabwe/Mozambique border posed a threat to the successful containment of cholera, especially as the quarantine in some areas was being violated.

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JAVA DECLARED FREE FROM POOT-AND-MOUTH DISEASE

Jakarta PELITA in Indonesian 16 Jan 84 p 6

[Excerpts] Jakarta, PELITA—Hoof-and-mouth disease [PMK], which has been attacking large animals throughout Java since about October 1983, was successfully halted in January 1984, both in terms of its spread as well as in protecting animals against the disease.

This was the conclusion of the report of the fourth and final Coordination and Evaluation Meeting for Protection Against Hoof-and-Mouth Disease, which was made public by the Directorate General of Animal Husbandry of the Department of Agriculture on Saturday [14 January].

Hoof-and-mouth disease, which re-emerged to attack cattle, was originally encountered in Blora Regency, Central Java, or Bojonegoro Regency, East Java, in August or September 1983. Later, in October 1983, the disease spread to almost all of Java.

As a record of the results achieved, the minister of agriculture issued Decision Letter No Tn 510/14/Kpts/1/1984 which declared that Blora and Bojonegoro Regencies were free of hoof-and-mouth disease and that the cattle trade in the two areas could be resumed.

Regarding other areas which have been closed to commercial trade in livestock, according to this government order a total of 12 regencies will also be reopened in the near future to commercial trade in livestock, on a normal basis.

Research by the Office of Veterinary Affairs in Surabaya, in cooperation with the Cattle Diseases Research Institute in Bogor, succeeded in producing a new vaccine against hoof-and-mouth disease which is really effective in wiping out the PNK virus found in this country. The vaccine has been given the name "Vaccine PMK Vetma 008."

Regarding the trade in cattle, water buffalo, goats, sheep, and pigs from Java to areas outside of Java, which had been prohibited since hoof-and-mouth disease began to spread, it was stated that reopening this trade could be considered 6 months after the end of cases of the disease and when certain requirements are met.

5170

CAMPAIGN AGAINST BOVINE TB 'A FAILURE'; NEW PLAN ANNOUNCED

Agriculture Minister's Speech

Dublin IRISH INDEPENDENT in English 7 Jan 84 p 5

[Article by Paul Drury]

[Text] Agriculture Minister Austin Deasy has admitted that the controversial +150 million bovine TB eradication scheme is a failure.

He has now ordered a review of the scheme, setting a three-year target for a "significant reduction" in the disease.

Last night, in a tough warning to vets responsible for administering the scheme, Mr. Deasy said "maverick" practitioners could do enormous damage in frustrating the work done by the majority of their colleagues.

"As far as I am concerned any veterinarian whose performance is found to be short of what is expected can expect no leniency," said the Minister, at a Macra na Feirme meeting in Thurles.

The Minister's hard-hitting speech comes within days of a call from the Limerick-based Irish Creamery Milk Suppliers' Association (ICMSA) for an independent committee of enquiry into the failure of the disease eradication programme.

But the ICMSA has now attacked the Minister's target of 1 per cent incidence in herds at the end of the three-year period.

ICMSA President Mr. Sean Kelly declared the 1 per cent target was just not good enough.

"We want total and complete eradication of the disease and, therefore, the target must be for a no incidence," he said. "Any target which accepts a low, but unacceptable level of incidence will mean a continuation in the malpractice that exists today in finer forms."

In Thurles, the Minister pointed out that the £150 million cost of the scheme to date was equivalent to £600 million in 1983 money terms. The State is set to spend a further £13 million in 1984, he added.

"It is not possible to justify continuing expenditure on that scale if we are not achieving significant progress towards final eradication," said Mr. Deasy.

"Our export trade in cattle, beef and dairy products will go by the board unless we quickly come to grips with this problem," said Mr. Deasy.

The taxpayer footing the bill and the farmers suffering inconvenience and loss were entitled to be assured that the performance of those managing the scheme measures up to the highest standards, he added.

While the great majority of vets carried out the duties assigned to them under the TB scheme in a careful and conscientious fashion, the Minister said: "I have come across cases where the performance of the veterinarian was far [words missing].

The Minister went on to warn farmers and cattle dealers that anybody found short of what it should be", flouting the disease eradication laws in regard to the movement of cattle would face "the full rigours of the law". [as published]

The ICMSA yesterday urged Mr. Deasy to set up a national disease eradication board, with strong farmer representation.

"Farmers are contributing over \$5 million directly to the cost of the eradication schemes and are therefore entitled to a direct say in the design and operation of the disease eradication programme," said ICMSA President Mr. Kelly.

The Minister said in an RTE interview last night that he was determined to stamp out the "racketeering" which was hampering the eradication scheme.

He was concerned about tax-switching and unauthorised movement of diseased cattle, said Mr. Deasy, who declared that the culprits must be brought to justice.

Farmers' Criticism

Dublin IRISH INDEPENDENT in English 10 Jan 84 p 9

[Text] A spokesman for Co. Wexford Marts, Mr. James Codsd, in a statement issued last evening claims that the 30 day T.B. pre-movement cattle test introduced in 1978 has been a total and costly failure.

On behalf of Co. Wexford farmers he has called on the Minister for Agriculture, Mr. Austin Deasy, to scrap the present system in favour of a twice-yearly herd test with a proper marketing structure that will pay for itself through increased cattle numbers for the export trade.

The overall incidence of the disease in animals has been reduced from 17 per cent to 0.2 per cent. In other words, where one animal in six was affected by TB 30 years ago, just one in 500 is infected today.

But 2.5 per cent of all cattle herds in the country remain affected. This figure has not changed over the past two years despite the continued outlay of taxpayers' money.

There are particular problems which make the task of clearing the disease more difficult than it would otherwise be. The national cattle herd has grown considerably since 1954 and farming has become more intensive.

In addition, there is a unique problem in Ireland in regard to cattle movement from farm to farm. Many cattle move as many as five or six times in their lifetimes—a pattern which is without parallel in the EEC.

Finally, it is always easier to make progress in the early stages of an eradication programme than at the end. The residual traces of a disease are always the hardest to tackle.

The problem is much more fundamental than that; other countries--such as the Netherlands--have managed to rid their cattle herds of TB with comparative ease. Why can we not do so?

Mr. Deasy has pointed to "racketeering" involving tag-switching and illegal cattle movement by unscrupulous farmers and to a number of "maverick" vets who have allegedly been milking the scheme.

It does seem extraordinary that Mr. Deasy is now proposing a complete reexamination of the campaign when the many proposals put forward by the vets farming organisations and Government-appointed Animal Health Council have been virtually ignored.

The Department admittedly has in the past six months initiated a new approach to the disease in the setting-up of a "special status zone" in Co. Kerry.

But this approach—whereby a special effort will be made to wipe out the disease in Co. Kerry before extending the "special status zone" to other areas—has been fraught with difficulties.

Vets again clashed with the Department over the precise administration of the new zone. And the IVU has insisted that they should have been consulted in drawing up the proposals—which they say fall far short of what is needed.

IVU General Secretary Peter Dargan argues that the national scheme as it stands is simply "harvesting" TB with an annual round of herd tests--while the disease continues to spread in between these checks.

What the vets want, according to vice-president and former president Paul Rafter, is a much more rigorous follow-up programme in which sources of infection would be traced and eliminated.

Analysis of Problems

Dublin IRISH INDEPENDENT in English 17 Jan 84 p 8

[Article by Paul Drury]

[Text] Efforts to rid the country of the scourge of bovine tuberculosis began in 1954. Some 30 years and £600 million in today's terms later, the disease is still with us.

Politicians have promised finally to come to grips with the problem almost as often as they have pledged their determination to drain the Shannon. Yet none has succeeded.

In fact, over the past two years absolutely no progress has been made in reducing the incidence of the killer disease. This despite the expenditure of £34.65 million in taxpayers' money last year alone.

The threat which bovine TB poses goes beyond the farm gate. The longer the problem goes untackled, the greater the risk that our £1,500 million beef and dairy exports may go by the board.

A look at the history of the eradication programme reveals a frightening failure to initiate a co-ordinated national drive to crack down once and for all on the disease.

The eradication scheme remains virtually unchanged from the piecemeal programme which was introduced in 1954. It is difficult to avoid the conclusion that both human and financial resources are being squandered.

There are 1,054 civil servants employed on a full-time basis to administer the scheme. Some 850 vets around the country spend as much as half their time in practice testing for TB.

Agriculture Minister Austin Deasy has made a recent promise to initiate a "thorough re-examination" of the eradication programme in consultation with the various interests involved.

It is typical of the emotionalism which the subject invariably engenders that the Minister's commitment immediately sparked off a head-on row with the Irish Veterinary Union (IVU).

It would be unfair ' int the finger of blame for this latest clash at either the Ministe ie vets; it should rather be pointed at our national penchant for arguin ...her than acting.

It should be pointed out that the scheme has not been without a considerable degree of success. Indeed, as Mr. Deasy has said, we could not have maintained cattle and beef exports to foreign markets without it.

They point out that the administration of the scheme is archaic, Regulation of cattle movements is an obvious area for computerisation; the reality is that there are 6 million red, blue and green cards for every animal in the country.

As to the allegation that vets are the last people who want to see bovine TB wiped out in Ireland because of the amount of money being made from testing. Coffey argues that TB testing is now one of the least profitable aspects of a vet's work.

Where the Taxpayers' Money Went

The bovine TB eradication programme has cost £203 million in tax-payers' money £600 million in 1984 terms) since it began in 1954. Last year's campaign cost £34.65 million. This is how it was spent:

Pay for 1,054 civil servants	£8.7m.	25.3%
Civil servants' motor expenses	£5.0m.	14.4%
Compensation for farmers	€8.7m.	25.7%
Payments to vets (including cost of office staff and motor expenses)	11.7m.	33.4%
Miscellaneous expenses	£ 0.4m.	1.2%
Total	£ 34.6million	

BRIEFS

FOOT-AND-MOUTH, SWINE FEVER OUTBREAKS--Ommen, February 17--Recent outbreaks of foot-and-mouth disease and swine fever are likely to cost the Netherlands a billion guilders, a senior Dutch veterinary inspector said last night. Dr Jaarsma, inspector for Overijssel province, told a meeting of the provincial agricultural association OLM that the resulting drop in meat prices would have 'disastrous' effects, and farmers alone would lose millions. He said he feared that the state was no longer in any position to compensate farmers for the losses caused by the diseases. Though necessary steps to combat the epidemics were being taken in the province, the local authorities were staying tight-lipped over new outbreaks, in a bid to avoid hitting exports even further, he said. But the policy was unlikely to succeed in the case of swine fever, he warned. A new outbreak had been recorded in Klarenbeek, near Zutphen, and cases just across the German border were rising, bringing the total number of instances to at least 150. Dutch and West German veterinary experts would be meeting in Aalten today to discuss a joint effort to contain the disease in the border region, he said. [Text] [The Hague ANP NEWS BULLETIN in English 17 Feb 84 p 1]

ANTHRAX EPIDEMIC SPREADS FROM NORTH TO MIDLANDS

BK131129 Hanoi Domestic Service in Vietnamese 2300 GMT 12 Mar 84

[Text] Recently an anthrax infection in cattle and horses has spread into areas of northern mountain provinces and is spreading toward the midlands and delta provinces. The Ministry of Agriculture has held a meeting with the provinces infected by anthrax to find the cause of this disease and discuss concrete measures to gradually conquer and eliminate the epidemic.

In localities with frequent epidemics, the veterinary sector must annually establish epidemic charts and vaccinate cattle and horses against anthrax before May. They must safely dispose of livestock that have died of anthrax in order to prevent the disease from spreading. In epidemic areas, they must build a safety zone by periodically vaccinating livestock and closely checking and controlling the slaughter of animals and the purchase and transportation of meats.

Northern mountain provinces must improve and perfect their livestock managerial systems, take care of their cattle and horses, establish an inventory of the number of livestock in each area in order to prepare sufficient anthrax vaccine, and provide 100-percent vaccination for cattle and horses before May this year.

LOCUSTS ATTACK PLANTS AND TREES IN CENTRAL JAVA

Jakarta KOMPAS in Indonesian 12 Jan 84 pp 1, 9

[Text] Kebumen [Central Java], KOMPAS—Hundreds of thousands of locusts have been swarming and eating up the crops of the residents of Sempor District, Kebumen Regency, Central Java. About 2,000 coconut trees and 6 hectares of land planted to peanuts, corn, cassava, and bananas belonging to local people have been destroyed as a result of the attacks by brown-colored locusts, which have yellow stripes on their abdomens. The insects, which are about as big as a human thumb, are rather skillful in destroying plants and trees.

Answering questions from a KOMPAS representative on Wednesday [11 January], Gunawan, the chief of the Community Relations Service of Kebumen Regency, said: "The people are afraid that, if preventive action is not taken immediately, the locusts will descend on the rice fields and will destroy their food crops." The local government authorities frankly admit that all their efforts to protect the area against the locusts have been unsuccessful in driving the insects away.

Last Week of December

Gunawan indicated that the attacks on trees and plants by the brown-colored locusts, which are called "the devil's locusts" by the local people, were reported as having begun in the last week of December 1983. The Estate Agricultural Service believes that the source of the locusts is the forest area operated by PN Perhutani Jateng, which is located near Bonosari Village in Sempor District.

After satisfying themselves with infesting the teak, albasia, and pine trees in the forest, hundreds of thousands of the locusts expanded their activities to the farms of the local people. Gunawan said: "In practice, only clove plants have been free from attacks by the locusts. They quickly destroy all types of trees and plants."

Efforts made to protect trees and plants against the locust attacks by the Estate Agricultural Service and the People's Agricultural Service, using solutions of "Tamaron" and "Azodrayn," which are sprayed on the insects, have failed to discourage the strange insects. Gunawan said: "Indeed, the regent himself has caught locusts and put them into solutions of 'Tamaron' and 'Azodrayn.' However, it turned out that these poisonous solutions did not kill the insects. Regent

Daldijono and all of the members of the Kebumen Executive Council last Saturday [7 January] personally led the unsuccessful efforts to spray and kill the insects.

The Kebumen Regency authorities stated that they did not know what kind of spray solution could drive away the insects. They said: "We have some funds for preventive purposes, but unless we know what kind of insecticide would be effective, how can we buy it?"

Sempor District reports that the losses suffered by the people from the attacks by the brown-colored insects are estimated at 15 million rupiahs. The people are becoming increasingly fearful as they see the area affected by the insects continuing to grow, with various kinds of insecticides unable to stop these locusts, which are destroying the crops.

5170

EEC TO FINANCE BANANA PEST CONTROL PROJECT IN KAGERA REGION

Dar es Salaam DAILY NEWS in English 25 Feb 84 p 3

[Excerpt] THE EUROPEAN Economic Community (EEC) has agreed to finance a three-year banana pest control and improvement project in Kagera Region.

The Kagera Regional Development Director, Ndugu Godwin Mgendi said this yesterday when opening a one-day meeting organised by an American company farm machinery chemicals—FMC International—for the use of Furadan chemicals to control banana weevils and nematodes.

The meeting, in Bukoba town, was attended by regional and district Party chairmen, district Party secretaries, area commissioners, district executive directors and agricultural officer.

Ndugu Mgendi said under this project, the EEC would provide chemicals, train staff locally and overseas, improve transport facilities and conduct a research on bananas.

He said Kagera Region had 177,660 hectares of bananas 54 per cent of which were highly infested by weevils and nematodes. The insects caused a loss of about 30 per cent.

The production of bananas which are the staple food of the population in Kagera, had dropped for about 0.4 tonnes per annum per hectare.

"The downward trend is attributed to a number of factors but the main ones include poor banana husbandry and banana weevils", he said.

According to a research by the Maruku Research Institute in Kagera on different chemicals imported by the Government, carbofuran whose trade name is Furadan was the most effective chemical for banana weevils and nematodes. The chemical is the product of MFC International.

BRIEFS

CABBAGE PEST CONTROL -- A biological pest control project on cabbage will be conducted by the Institute of Virology, Oxford. According to a release from the office of the Ministry of Agriculture, Lands and Food Production, Agriculture Minister Kamaluddin Mohammed said Cabinet agreed to allow the Institute to conduct the project on one of the country's major agricultural crops. The Ministry feels that a biological pest control programme would be beneficial to the country as there is need to reduce the amount of chemicals applied to the crop to minimise the toxic hazards to the consumer and the environment. The country is experiencing a serious insect problem on cabbage, a major cash crop. It was pointed out that caverpillars are now resistant to a wide spectrum of chemicals used by local farmers but researchers at the Central Experimental Station at Centeno, in collaboration with the Commonwealth Institute of Biological Control through its local laboratories, have been working on a programme for the control of major pests of cabbage and have attained some success using bio-control in combination with chemicals. The Institute of Virology will have the support of the Commonwealth Institute of Biological Control (C. I. B. C.) which has offered laboratory facilities at its station in Trinidad and the assistance of the University of the West Indies Agriculture Department. A research officer from the Ministry will monitor the progress of the project at the various experimental sites. [Text] [Portof-Spain TRINIDAD GUARDIAN in English 3 Mar 84 p 3]

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